



Atty. Docket No. JCI01 P-1010

**CERTIFICATE OF MAILING**

I hereby certify that the paper, together with all enclosures identified herein, are being deposited with the United States Postal Service as first class mail, addressed to the Assistant Commissioner for Patents, Washington D.C. 20231, on the date indicated below.

November 4, 2002

Date

*Deborah A. Witvoet*  
Deborah A. Witvoet

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Examiner : Jerry D. Johnson  
Art Unit : 1764  
Applicants : Tony M. Pokorzynski et al.  
Appln. No. : 09/074,288  
Filed : May 7, 1998  
Confirmation No. : 1982  
For : FIBER-REINFORCED VEHICLE INTERIOR TRIM AND  
METHOD OF MANUFACTURE

Assistant Commissioner for Patents  
Washington D.C. 20231

**TRANSMITTAL OF APPEAL BRIEF**  
**(PATENT APPLICATION - 37 CFR §1.192)**

1. Transmitted herewith, in triplicate, is the APPELLANT'S BRIEF in this application, with respect to the Notice of Appeal filed on September 3, 2002.

2. **STATUS OF APPLICANTS**

This application is on behalf of:

other than a small entity.

a small entity.

A verified statement:

is attached.

was already filed.

3. **FEE FOR FILING APPEAL BRIEF**

Pursuant to 37 CFR § 1.17(c), the fee for filing the Appeal Brief is:

small entity \$160.00

other than a small entity \$320.00

Appeal Brief fee due: \$320.00

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**4. EXTENSION OF TERM**

The proceedings herein are for a patent application and the provisions of 37 CFR § 1.136 apply.

*(complete (a) or (b), as applicable)*

(a)  Applicant petitions for an extension of time under 37 CFR § 1.136:

Extension (months)	Fee for other than <u>small entity</u>	Fee for <u>small entity</u>
<input type="checkbox"/> one month	\$110.00	\$55.00
<input type="checkbox"/> two months	\$400.00	\$200.00
<input type="checkbox"/> three months	\$920.00	\$460.00
<input type="checkbox"/> four months	\$1440.00	\$720.00

FEE: \$\_\_\_\_\_

If an additional extension of time is required, please consider this a petition therefor.

*(check and complete the next item, if applicable)*

An extension for \_\_\_\_\_ months has already been secured, and the fee paid therefor of \$\_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request: \$\_\_\_\_\_

*or*

(b)  Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

**5. TOTAL FEE DUE**

The total fee due is:

Appeal Brief fee: \$320.00

Extension fee (if any) \$000.00

**TOTAL FEE DUE: \$320.00**

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**6. FEE PAYMENT**

Attached is a check in the sum of **\$320.00**.  
 Charge Account No. 16 2463 the sum of \$\_\_\_\_\_.  
A duplicate of this transmittal is attached.

**7. FEE DEFICIENCY**

If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 16 2463.  
*and/or*  
 If any additional fee for claims is required, charge Account No. 16 2463.

Respectfully submitted,

TONY M. POKORZYNSKI ET AL.

By: PRICE, HENEVELD, COOPER,  
DEWITT & LITTON

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
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METHOD OF MANUFACTURE

Assistant Commissioner for Patents  
Washington D.C. 20231

**APPELLANT'S BRIEF (37 CFR §1.192)**

This brief is in furtherance of the Notice of Appeal, filed in this case on September 3, 2002.

The fees required under § 1.17(f), and any required petition for extension of time for filing this brief and fees thereof are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief is transmitted in triplicate. (37 CFR § 1.192(a)).

This brief contains these items under the following headings, and in the order set forth below (37 CFR § 1.192(c)):

- I. Real Party in Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Invention
- VI. Issues
- VII. Grouping of Claims
- VIII. Arguments
- IX. Conclusion

Appendix of Claims Involved in the Appeal

The final page of this brief bears the attorney's signature.

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**APPELLANT'S BRIEF ON APPEAL UNDER 37 CFR § 1.192**

**I. Real Party in Interest**

The real party in interest in this appeal is Johnson Controls Technology Company, 49200 Halyard Drive, Plymouth, Michigan, 48170.

**II. Related Appeals and Interferences**

There are not any related appeals or interferences which will directly affect, or be directly affected by, or have a bearing on, the Board's Decision in this Appeal.

**III. Status of Claims**

This is an Appeal from the rejection of claims 1-4 and 6-10. Claim 5 was cancelled, and the remaining claims 11-33 have been withdrawn from consideration.

**IV. Status of Amendments**

The rejection of claims 1-4 and 6-10 is being appealed after a Final Rejection of these claims. An amendment after the Final Rejection (dated August 5, 2002) was entered as indicated in the Advisory Action mailed August 29, 2002.

**V. Summary of the Invention**

The claimed invention is directed a vehicle interior trim member having an upholstery skin material, a porous substrate, and a molded foam layer extending between the upholstery skin material and the porous substrate, wherein the molded foam material bonds the skin material to the porous substrate.

Vehicle interior trim pieces typically include a rigid substrate, a finish upholstery layer, and a flexible urethane foam layer disposed between the upholstery layer and the rigid substrate. Conventionally, such automotive interior trim pieces are made by molding a rigid substrate, separately molding a flexible urethane foam layer, and adhesively attaching the separately

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molded foam layer to the rigid substrate. These conventional methods have two major disadvantages. First, three separate steps are required to make the trim member, and second the resulting products are frequently defective because the contours of the components are not precisely matched. The result is that voids are created between the rigid substrate and the flexible foam layer. These voids can cause shear collapse of the trim member.

The invention provides a method and a resulting trim piece that is less susceptible to defects. The trim piece of the invention is made by a process in which the flexible foam layer is bonded to the upholstery layer and the rigid substrate during molding of the flexible foam layer. Thus, molding of the flexible foam and attachment of the flexible foam to the rigid substrate are achieved in a single step rather than two separate steps. In addition to simplifying the manufacturing process, a superior product is provided in which the flexible foam is precisely shaped to the contours of the rigid substrate, thereby eliminating voids between the substrate and the flexible foam. Attachment of the flexible foam material to the rigid substrate is achieved during molding of the flexible foam by a combination of adhesive and mechanical connections created between the components during molding of the flexible foam in a cavity defined in part by the rigid substrate. More specifically, during the flexible foam forming step, the flexible foam forming material penetrates pores on the surface of the rigid substrate. This material subsequently expands and cures within the pores of the substrate to form a multiplicity of miniature mechanical connections that cumulatively provide a tenacious bonding of the flexible foam material to the rigid substrate.

## VI. Issues

The issues under consideration in this Appeal are as follows:

1. Whether claims 1-4 and 6-10 are anticipated under 35 USC § 102(b) by Rohrlach et al. (U.S. Patent No. 5,082,609).
2. Whether claims 1-4 and 6-10 are anticipated under 35 USC § 102(b) by Takeuchi et al. (U.S. Patent No. 5,180,617).

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3. Whether claims 1-4 and 6-10 are unpatentable under 35 USC § 103(a) based on the teachings of Takeuchi et al. (U.S. Patent No. 5,180,617).

## VII. Grouping of Claims

For purposes of this Appeal only, claims 1 and 6 will stand or fall together; and claims 2-4 and 7-10 will stand or fall together.

## VIII. Arguments

### A. Anticipation By Rohrlach Et Al.

#### 1. The Rejection

Claims 1-4 and 6-10 have been rejected under 35 USC § 102(b) as being anticipated by Rohrlach et al. (U.S. Patent No. 5,082,609). The Examiner has stated that the Rohrlach patent teaches a method of producing a molded panel, "wherein a rigid substrate supports a finished panel surface, and for example is particularly applicable to, but not limited to, a door inner panel for a motor vehicle (column 1, lines 4-8)." The Examiner has further stated that the panel is produced in a single closable die by a multiple stage operation, "the first stage of the operation being to spray an aliphatic polyurethane coloured film onto a release agent of one die portion, and spray an elastomer polyurethane over that film and allow to at least partially set, lay sheet of reinforcing fibres which can for example be a continuous filament glass fibre over the liquid ingredients of rigid foam polyurethane over the reinforcing fibres, close the mould and remove the product after setting."

Notably, the Examiner has not alleged that the reference teaches the claimed interior trim member having the following features: (1) a porous substrate, (2) an upholstery skin that is coextensive with the porous substrate, or (3) a foam extending between the upholstery skin and the porous substrate, wherein the porous substrate is held on the backside of the trim member.

#### 2. The Rohrlach Et Al. Patent

The Rohrlach et al. patent (U.S. Patent No. 5,082,609) discloses an interior trim member 10 for a motor vehicle comprising a substrate 11 having a continuous filament glass

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reinforcement which is penetrated by a cross-linked rigid polyurethane. A partly cellular high density lamina 12 of polyurethane overlies the rigid substrate 11. The partly cellular high density lamina 12 of polyurethane is adhered to a finish face 13 (column 2, lines 44-50). The exposed face of the trim panel is prepared by first applying a film 13 of aliphatic polyurethane to a lower die portion 14 (column 2, lines 61-66). Thereafter, a dense cellular lamina 12 is applied over the finish face film 13 to adhere to the reverse side thereof (column 2, line 67 through column 3, line 4). Lamina 12, which is preferably elastomeric and cellular, is allowed to at least partially set before a sheet of glass fibre 24 is placed over lamina 12 (column 3, lines 5-10). Finally, the glass fibre is impregnated by a moldable polyurethane that sets to become rigid after it has embodied the fibres of glass sheet 24 (column 3, lines 10-16).

### **3. Discussion Of Rejection In View Of The Rohrlach Patent**

As noted above, the Examiner has not alleged that the Rohrlach patent teaches a porous substrate, as required by the claims. This is because the Rohrlach patent does not teach or suggest a porous substrate.

Apparently, the Examiner believes that the film 13 of aliphatic polyurethane meets the requirement for an upholstery skin material, and that the overlying partly cellular high density lamina 12 of polyurethane meets the requirement for a molded foam material extending between the upholstery skin material and a substrate. Clearly, neither finish face 13 nor high density lamina 12 meet the claim requirements for a porous substrate "held to a backside of the trim member that is opposite of the upholstery skin material." Thus, one must conclude that the Examiner regards the glass fibre 24 and/or the moldable polyurethane impregnating the glass fibre 24 as being equivalent to the required porous substrate. However, neither the sheet of glass fibre 24 nor the moldable polyurethane material impregnating the sheet of glass fibre 24 constitute a porous substrate that is "held to a backside of the trim member that is opposite of the upholstery skin material."

While the sheet of glass fibre material is initially porous, it is placed "over the at least partially set elastomer 12" and subsequently "impregnated in stage 4 by a further two pot mix of moldable polyurethane . . . which sets to become rigid after it has embedded the fibres of the

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glass sheet 24." The glass fibre 24 is only placed over the at least partially set elastomer 12 before impregnation with the moldable polyurethane. Accordingly, before impregnation with the moldable polyurethane, the partly cellular high density lamina 12 does not bond finish face 13 to the sheet of glass fibre 24. Therefore, the requirement that "said molded foam material bonding said skin to said porous substrate," is not met prior to impregnation of the sheet of glass fibre 24 with the moldable polyurethane. After the sheet of glass fibre 24 has been impregnated with the two pot mix of moldable polyurethane, the moldable polyurethane "sets to become rigid after it has embodied the fibres of the glass sheet 24." As is well known, the disclosed impregnation and embodiment of the fibres by the polyurethane changes the character of the sheet of glass fibre 24, such that it is no longer porous. After impregnation and embodiment of the fibres of the glass sheet by the polyurethane, a fibre reinforced thermoset substrate that is non-porous is formed. Accordingly, after impregnation of the sheet of glass fibres 24 with the moldable polyurethane, there is provided a resulting substrate that fails to meet the requirement for a porous substrate. Further, because the glass fibres are "embodied" within the polyurethane resin, the sheet of glass fibres constitutes neither a porous substrate, nor a substrate that is "held to a backside of the trim member that is opposite of the upholstery skin material." Thus, neither the finished product disclosed in the Rohrlach et al. patent, nor any intermediate product, simultaneously meets the requirements for "a porous substrate" and a "molded foam material bonding said skin material to said porous substrate, whereby said porous substrate is held to a backside of the trim member that is opposite of the upholstery skin material." It is only after the moldable polyurethane impregnating the sheet of glass fibres has set (become cross-linked) that the molded foam material becomes bonded to a substrate. However, this substrate is not porous when it is bonded to the molded foam material. For these reasons, it is respectfully submitted that the Rohrlach et al. patent fails to identically teach (i.e., anticipate) the claimed invention.

As pointed out above, the sheet of glass fibres 24 described by Rohrlach et al. never simultaneously constitute a porous layer and a substrate bonded to a foam layer. In fact, the sheet of glass fibre 24 is never actually bonded directly to the foam layer (partly cellular high

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density lamina 12), but is instead impregnated and embodied by a moldable polyurethane which becomes adhesively bound to the partly cellular high density lamina 12. However, upon impregnation and embodiment of the fibres within the polyurethane resin, the sheet of glass fibre 24 loses its porous character.

It is only by substantially modifying the teachings of Rohrlach et al. that one could achieve the claimed invention. More specifically, it would be necessary to eliminate the moldable polyurethane and apply a moldable foam-forming material over the skin material and between the skin material and the fibrous reinforcing mat, such that the foam-forming material penetrates openings in the fibrous reinforcing mat to bond the fibrous reinforcing mat upon curing of the foam-forming material. This very substantial modification is neither taught nor suggested by the Rohrlach et al. patent. For these reasons, it is respectfully submitted that the claims are patentable over the teachings of Rohrlach et al.

Claims 2 and 7 further distinguish over the teachings of Rohrlach et al. by requiring that the substrate "comprises a porous fibrous material having openings therein, wherein molded foam penetrates said openings to form a bond to said porous fibrous material through said openings." Clearly Rohrlach et al. is not teaching the claimed subject matter, but is instead teaching placement of a sheet of glass fibre over "the at least partially set elastomeric elastomer 12," and subsequently impregnating and embodying the fibres in a rigid thermoset polyurethane. There is not any teaching or suggestion in Rohrlach et al. that the at least partially set elastomer 12 penetrates openings in the sheet of glass fibre 24 to form a bond between the porous fibrous material and the foam material through the openings. To the contrary, because the foam layer (partly cellular high density lamina 12) is "at least partially set" before placement of the sheet of glass fibres 24 onto lamina 12, the material of lamina 12 cannot penetrate openings in the sheet of glass 24, since a thermoset material cannot flow. Further, the fibres of glass sheet 24 cannot be embodied by the moldable polyurethane as disclosed by Rohrlach et al. if the material of the high density lamina 12 has already penetrated openings of the porous fibrous material. Therefore, it is respectfully submitted that the teachings of Rohrlach et al. are contrary to (i.e.,

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teach against) the requirement of claims 2 and 7 for penetration of foam material into the openings of the porous fibrous material.

**B. Anticipation By Takeuchi Et Al.**

**1. The Rejection**

Claims 1-4 and 6-10 have been rejected under 35 USC § 102(b) as being anticipated by Takeuchi et al. More specifically, the Examiner has stated that in one embodiment (apparently the "Second Embodiment" described at column 4 line 33 through column 5, line 40), there is disclosed a vehicle interior finishing panel having a facing material set in a lower mold element with its front side down, an impregnated sheet material set on the backside portion of the facing material, and a fiber-reinforcing material "set on the facing material and the impregnated sheet material." Accordingly to the Examiner, "Thereafter the molding material such as hard urethane foam is fed on the fiber-reinforcing material and the upper mold element closed, and the mold is heated to foam the molding material to mold it into a given shape (column 5, lines 4-22)."

The Examiner further states that in another embodiment (apparently the "Third Embodiment" described at column 5, line 43 through column 6, line 40), a facing material is set in a lower mold element with its front side down, a fiber-reinforcing material is set on the facing material, and, thereafter, "the molding material such as hard urethane foam is fed onto the fiber-reinforcing material, then the upper mold element is closed, and the mold is heated to foam the molding material (column 6, lines 1-11)."

Notably, the Examiner has not alleged that the Takeuchi et al. patent teaches the claimed combination wherein a "porous substrate is held to a backside of the trim member that is opposite of the upholstery skin material," or wherein the upholstery skin material is "substantially coextensive with said substrate."

**2. Discussion Of The Takeuchi Et Al. Patent**

The Takeuchi et al. patent discloses a vehicle interior finishing panel having at least one convex portion that is constructed such that a foam based material into which a mat-shaped fiber-reinforcing material is inserted is integrally molded on the backside of a facing material. The invention utilizes a porous sheet material "which forces said fiber-reinforcing material set

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in a mold toward said facing material during a molding process." The porous sheet material "is inserted integrally into a backside of a facing material at said convex section."

In a first embodiment, a pre-molding facing material is set in a lower mold element, fiber-reinforcing material 1 is set on the facing material 5, and porous sheet material 9 is set on portions of the fiber-reinforcing material 1 which correspond with convex sections of the lower mold element. Thereafter, a molding material such as hard urethane foam is fed from a material feeding machine onto the fiber-reinforcing material and the porous sheet material 9. The upper mold section is closed and the mold is heated to foam the molding material. See column 3, line 58 through column 4, line 8.

In a second embodiment, a facing material 5 is first placed on the lower mold element, impregnated sheet material 9' is set on those portions of the facing material 5 corresponding to the convex sections 7, and a fiber-reinforcing material is set on the facing material 5 and the impregnated sheet material 9'. Thereafter, the molding material such as hard urethane foam is fed from the material feeding machine onto the fiber-reinforcing material 1, then the upper mold element is closed, and the mold is heated to foam the molding material. See column 5, lines 4-19.

Finally, in a third embodiment, a facing material 5 is placed on the lower mold element, fiber-reinforcing material 1 is set on the facing material 5, and, thereafter, the molding material such as hard urethane foam is fed from the material feeding machine onto the fiber-reinforcing material 1, then the upper mold element is closed, and the mold is heated to foam the molding material. See column 6, lines 1-17.

### 3. Discussion Of The Rejection In View Of The Teachings Of The Takeuchi Et Al. Patent

None of the three embodiments described by the Takeuchi et al. patent incorporate a porous substrate that is "held to a backside of the trim member and is opposite of the upholstery skin material."

While fiber-reinforcing material 1 and porous sheet 9 of the first embodiment described in the Takeuchi et al. patent are porous, neither the fiber-reinforcing material nor the porous

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sheet material 9 are held to a backside of the trim member. To the contrary, prior to feeding the molding material “onto the fiber-reinforcing material 1 and the porous sheet material 9,” the reinforcing material 1 and sheet material 9 are only placed on the backside of the facing material. Thus, the fiber-reinforcing material 1 and porous sheet material 9 are not held to a backside of the trim member that is opposite of the upholstery skin material. After the molding material has been fed onto the fiber-reinforcing material 1 and the porous sheet material 9, the reinforcing material 1 and the porous sheet material 9 are no longer porous, and are embedded within the molding material, not “held to a backside of the trim member that is opposite of the upholstery skin material.” Thus, there is not any time during the manufacturing process of the first embodiment described in the Takeuchi et al. patent that all of the claim limitations are simultaneously fulfilled. The requirement that “said porous substrate is held to a backside of the trim member” is never met during the disclosed fabrication process.

The second embodiment differs from the first embodiment only in that impregnating sheet material 9' is set on the backside portion of facing material 5 prior to placement of fiber-reinforcing material 1 on the facing material 5 and the impregnated sheet material 9'. However, as with the first embodiment, neither the impregnated sheet material 9' nor the fiber-reinforcing material 1 is bonded to the skin material by a molded foam material prior to feeding of the molding material onto the fiber-reinforcing material. After the molding material has been fed onto the fiber-reinforcing material, the impregnated sheet material and fiber-reinforcing material 1 are no longer porous, and, are not “held to a backside of the trim member that is opposite of the upholstery skin material.” Instead both the impregnated sheet material 9' and fiber-reinforcing material 1 are embedded within the molding material. Therefore, there is not any time during the process of preparing the vehicle trim member of the Second Embodiment of the Takeuchi et al. patent when a “porous substrate is held to a backside of the trim member that is opposite of the upholstery skin material.”

Claims 2 and 7 define additional subject matter which is not anticipated by the Takeuchi et al. patent. More specifically, the Takeuchi et al. patent does not describe the

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claimed integrated interior trim member for a vehicle, "wherein said substrate comprises a porous fibrous material having openings therein, wherein said moldable foam material penetrates said openings and bonds to said porous material through said openings." Rather than bonding a porous substrate to an upholstery skin material using a moldable foam material that penetrates openings on the porous substrate, the Takeuchi et al. patent describes a moldable foam material that is deposited over a fibrous or porous mat, and completely encompasses, embodies and/or impregnates the fibrous mat, rather than penetrating openings and bonding the porous material through said openings. Thus, the subject matter of claims 2 and 7 are not anticipated by the Takeuchi et al. patent. The third embodiment described in the Takeuchi et al. patent differs from the first two embodiments by using a forcing action to force the fiber-reinforcing material toward the facing material 5, rather than the porous sheet material 9 of the first embodiment or the impregnated sheet material 9' of the second embodiment. However, like the first and second embodiments, the fiber-reinforcing material 1 of the first embodiment is never "held to a backside of the trim member that is opposite of the upholstery skin material." As with the first two embodiments, fiber-reinforcing material 1 is "set on the facing material 5," and "Thereafter, the molding material such as hard urethane foam is fed from the material feeding machine (not shown) onto the fiber-reinforcing material 1." Before the molding material is deposited on the fiber-reinforcing material, the fiber-reinforcing material is not held to the trim member, but is only loosely placed over the trim member. After the molding material has been deposited on the fiber-reinforcing material, the fiber-reinforcing material becomes embedded within the molded foam material, and is not "held to a backside of the trim member." Accordingly, at no time is the requirement for a porous substrate "held to a backside of the trim member that is opposite of the upholstery skin material" met by the third embodiment of the Takeuchi et al. patent.

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### C. Obviousness Based On The Takeuchi Et Al. Patent

#### 1. The Rejection

Claims 1-4 and 6-10 have been rejected under 35 USC § 103(a) at being unpatentable over Takeuchi et al. The Examiner has admitted that “Takeuchi et al. do not disclose a trim piece wherein the porous sheet material 9 is ‘substantially coextensive’ with the upholstery skin material.” However, the Examiner has concluded that “it would have been obvious to one having ordinary skill in the art at the time the invention was made to form a convex shaped trim piece wherein the porous sheet was ‘substantially coextensive’ with the face material in order to prevent fibrous material from pulling away from the trim piece as taught by Takeuchi et al.”

#### 2. Discussion Of The Rejection Under 35 USC § 103

The Takeuchi et al. patent only discusses vehicle interior trim pieces made by placing fibrous reinforcing sheets or mats on a facing material 5 disposed on a lower mold element, and thereafter feeding a molding material “onto the fiber-reinforcing material, such that the fiber-reinforcing material becomes embedded within the molding material, and is never “held to a backside of the trim member that is opposite of the upholstery skin material,” as required by the claims. Very substantial modification of the processes described in the Takeuchi et al. patent would be needed to achieve the claimed structure. In particular, rather than depositing a molding material over a fiber-reinforcing material placed on an upholstery skin material as taught by the Takeuchi et al. patent, the claims require that the molding material extends between the upholstery skin material and a porous substrate. The Takeuchi et al. patent does not provide any motivation for this modification. Further, it is respectfully submitted that such modification would in fact be contrary to the teachings of Takeuchi et al., in as much as the essential feature of the Takeuchi et al. invention is to provide methods for avoiding “the occurrence of voids, resulted from the uneven distribution of fiber-reinforcing materials, at a convex section” by using a porous sheet material or other means for forcing “the fiber-reinforcing material toward the facing material during a molding process, not toward the backside of the trim member.” It is not obvious to do that which a reference expressly teaches against. Accordingly, it is

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respectfully submitted that the Takeuchi et al. reference does not provide motivation for the claimed interior trim member.

#### IX. Conclusion

For the reasons set forth above, and as is apparent from consideration of the cited references, the claims at issue present patentable subject matter, such that reversal of the rejection is proper.

Respectfully submitted,

TONY M. POKORZYNSKI ET AL.

By: PRICE, HENEVELD, COOPER,  
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November 4, 2002

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**Appendix of Claims (37 CFR §1.192(c)(9))**

**CLAIMS**

1. An integrated interior trim member for a vehicle comprising:
  - a porous substrate;
  - an upholstery skin material, said upholstery skin material being substantially coextensive with said substrate; and
  - a molded foam material extending between said upholstery skin material and said substrate, said molded foam material bonding said skin material to said porous substrate, whereby said porous substrate is held to a backside of the trim member that is opposite of the upholstery skin material.
2. The interior trim piece as defined in claim 1, wherein said substrate comprises a porous fibrous material having openings therein, wherein said moldable foam material penetrates said openings and bonds to said porous material through said openings.
3. The interior trim piece as defined in claim 2, wherein said substrate comprises a fiber reinforced mat.
4. The interior trim piece as defined in claim 3, wherein said fiber reinforced mat comprises fiberglass.
6. An integral interior trim member for a vehicle comprising:
  - an upholstery skin material, said upholstery skin material being substantially coextensive with said substrate;
  - a molded foam layer bonded to said upholstery skin material; and
  - a porous substrate bonded to said molded foam layer, said molded foam layer extending between said upholstery skin material and said porous substrate, whereby said porous substrate is held to a side of the trim member that is opposite of the upholstery skin material.

7. The interior trim as defined in claim 6, wherein said substrate comprises a porous fibrous material having openings therein, wherein molded foam penetrates said openings to form a bond to said porous fibrous material through said openings.
8. The interior trim piece as defined in claim 7, wherein said substrate comprises a fiber reinforced mat.
9. The interior trim piece as defined in claim 7, wherein said fiber reinforced mat comprises fiberglass.
10. The interior trim piece as defined in claim 6, wherein said foam layer comprises polyurethane.